



March 29, 2023

Alphatec Spine, Inc.
Neha Mohindroo
Regulatory Affairs Associate
1950 Camino Vida Roble
Carlsbad, California 92008

Re: K223611

Trade/Device Name: Calibrate LTX Interbody System
Regulation Number: 21 CFR 888.3080
Regulation Name: Intervertebral Body Fusion Device
Regulatory Class: Class II
Product Code: MAX, PHM, OVD
Dated: December 22, 2022
Received: December 23, 2022

Dear Neha Mohindroo:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. Although this letter refers to your product as a device, please be aware that some cleared products may instead be combination products. The 510(k) Premarket Notification Database located at <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpmn/pmn.cfm> identifies combination product submissions. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal

statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803) for devices or postmarketing safety reporting (21 CFR 4, Subpart B) for combination products (see <https://www.fda.gov/combination-products/guidance-regulatory-information/postmarketing-safety-reporting-combination-products>); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820) for devices or current good manufacturing practices (21 CFR 4, Subpart A) for combination products; and, if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <https://www.fda.gov/medical-devices/medical-device-safety/medical-device-reporting-mdr-how-report-medical-device-problems>.

For comprehensive regulatory information about medical devices and radiation-emitting products, including information about labeling regulations, please see Device Advice (<https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance>) and CDRH Learn (<https://www.fda.gov/training-and-continuing-education/cdrh-learn>). Additionally, you may contact the Division of Industry and Consumer Education (DICE) to ask a question about a specific regulatory topic. See the DICE website (<https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice>) for more information or contact DICE by email (DICE@fda.hhs.gov) or phone (1-800-638-2041 or 301-796-7100).

Sincerely,

Katherine D. Kavlock -S

for

Brent Showalter, Ph.D.

Assistant Director

DHT6B: Division of Spinal Devices

OHT6: Office of Orthopedic Devices

Office of Product Evaluation and Quality

Center for Devices and Radiological Health

Enclosure

Indications for Use

510(k) Number (if known)

K223611

Device Name

Calibrate LTX Interbody System

Indications for Use (Describe)

The Calibrate LTX Interbody System is indicated for spinal fusion procedures from T1 to S1 in skeletally mature patients for the treatment of a symptomatic degenerative disc disease (DDD), degenerative spondylolisthesis, spinal stenosis, and/or thoracic disc herniation (myelopathy and/or radiculopathy with or without axial pain) at one or two adjacent levels. DDD is defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies.

Additionally, the Calibrate LTX Interbody System can be used as an adjunct to fusion in patients diagnosed with multilevel degenerative scoliosis and sagittal deformity.

The Calibrate LTX Interbody System is intended for use on patients who have had at least six months of non-operative treatment. It is intended to be used with autograft and/or allogenic bone graft comprised of cortical, cancellous, and/or corticocancellous bone, and/or demineralized allograft bone with bone marrow aspirate and supplemental fixation systems that are cleared by FDA for use in the thoracic and lumbar spine.

Calibrate LTX spacers expanded greater than 20° must be used with the provided bone screws in addition to supplemental fixation. Calibrate LTX spacers without integrated fixation features may be used with AMP-X System as integrated fixation in addition to supplemental fixation.

Type of Use (Select one or both, as applicable)

Prescription Use (Part 21 CFR 801 Subpart D)

Over-The-Counter Use (21 CFR 801 Subpart C)

CONTINUE ON A SEPARATE PAGE IF NEEDED.

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This 510(k) summary of safety and effectiveness is being submitted in accordance with the requirements of 21 CFR 807.92.

I. SUBMITTER: Alphatec Spine, Inc.
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Contact Person: Neha Mohindroo
Associate, Regulatory Affairs
Contact Phone: (760) 356-6596

Date Summary Prepared: February 28, 2023

II. DEVICE

Name of Device: Calibrate LTX Interbody System
Common or Usual Name: Intervertebral body fusion device
Classification Name: Intervertebral fusion device with bone graft, lumbar
Intervertebral fusion device with integrated fixation, lumbar
Intervertebral fusion device with bone graft, thoracic
Regulation Number: 21 CFR 888.3080
Regulatory Class: Class II
Product Code: MAX, OVD, PHM

III. LEGALLY MARKETED PREDICATE DEVICES

510(k)	Product Code	Trade Name	Manufacturer
Primary Predicate Device			
K222028	MAX, OVD, PHM	IdentiTi and Transcend Interbody Systems	Alphatec Spine
Additional Predicate Devices			
K222455	MAX, OVD, PHM	Calibrate LTX Interbody System	Alphatec Spine

IV. DEVICE DESCRIPTION

The subject Calibrate LTX Interbody System is a lordotic expandable thoracolumbar intervertebral body fusion system designed to be inserted through a lateral or anterolateral surgical approach. The subject interbody spacers are manufactured from titanium alloy (Ti-6Al-4V ELI) per ASTM F136. The Calibrate LTX System consists of a variety of shapes and sizes of interbody spacers, inserters, trials, and general instruments to create lordotic

expansion, restore sagittal alignment, and provide indirect decompression. Implants are offered with anti-migration teeth and grit-blast treatment on the bone-contacting endplate surfaces. Certain Calibrate LTX Interbody System offerings also accept fixation bone screws manufactured from titanium alloy per ASTM F136.

This purpose of this 510(k) is to receive clearance for an anti-migration plate (“AMP-X”) which may be used with certain LTX interbody offerings. AMP-X includes fixation plates, center locking screws, and bone screws manufactured from titanium alloy per ASTM F136. Additionally, the purpose of this 510(k) is to receive clearance for expanded indications for the treatment of degenerative spondylolisthesis, multilevel degenerative scoliosis, spinal stenosis, and sagittal deformity, and use of allogenic bone consisting of cortical bone, as well as allogenic bone consisting of demineralized allograft bone with bone marrow aspirate.

V. INDICATIONS FOR USE

The Calibrate LTX Interbody System is indicated for spinal fusion procedures from T1 to S1 in skeletally mature patients for the treatment of a symptomatic degenerative disc disease (DDD), degenerative spondylolisthesis, spinal stenosis, and/or thoracic disc herniation (myelopathy and/or radiculopathy with or without axial pain) at one or two adjacent levels. DDD is defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies.

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The Calibrate LTX Interbody System is intended for use on patients who have had at least six months of non-operative treatment. It is intended to be used with autograft and/or allogenic bone graft comprised of cortical, cancellous, and/or corticocancellous bone, and/or demineralized allograft bone with bone marrow aspirate and supplemental fixation systems that are cleared by FDA for use in the thoracic and lumbar spine.

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VI. TECHNOLOGICAL COMPARISON TO PREDICATES

The technological design features of the subject implants were compared to the predicate Identiti and Transcend Interbody Systems (K222028) and additional predicate Calibrate LTX Interbody System (K222455) in intended use, indications for use, design, function, and technology, and it was demonstrated that they are substantially equivalent. Calibrate LTX interbody implants are substantial equivalent in design, material, and function as predicate Calibrate LTX interbody implants (K222455). The new modular AMP-X plate that must be used with Calibrate LTX is substantially equivalent in design, materials, and

function to the integrated fixation features of the predicate Calibrate LTX (K222455) as well as LIF AMP that must be used with ATEC LIF interbody implants (K222028).

VII. PERFORMANCE DATA

Nonclinical testing performed on the Calibrate LTX Interbody System supports substantial equivalence to other predicate devices. The following testing was performed:

- Dynamic Axial Compression (per ASTM F2077)
- Dynamic Compression-Shear (per ASTM F2077)
- Static Screw Push-Out Testing

Since the technological characteristics of the subject Calibrate LTX Interbody System is substantially equivalent to the predicate systems, no further clinical or non-clinical testing is required to support the expanded indications for use of the subject system.

Clinical Information

Not applicable; determination of substantial equivalence is not based on an assessment of clinical performance data.

VIII. CONCLUSION

Based upon the information provided in this 510(k) submission, it has been determined that the subject devices are substantially equivalent to legally marketed devices in regard to indications for use, intended use, design, technology, and performance.